Complete Summary

GUIDELINE TITLE

Management of uncomplicated acute bronchitis in adults.

BIBLIOGRAPHIC SOURCE(S)

Michigan Quality Improvement Consortium. Management of uncomplicated acute bronchitis in adults. Southfield (MI): Michigan Quality Improvement Consortium; 2008 May. 1 p.

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Uncomplicated acute bronchitis

GUIDELINE CATEGORY

Counseling
Diagnosis
Evaluation
Management
Treatment

CLINICAL SPECIALTY

Emergency Medicine
Family Practice
Internal Medicine
Pulmonary Medicine

INTENDED USERS

Advanced Practice Nurses
Health Plans
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

- To achieve significant, measurable improvements in the management of uncomplicated acute bronchitis through the development and implementation of common evidence-based clinical practice guidelines
- To design concise guidelines that are focused on key management components of uncomplicated acute bronchitis to improve outcomes

TARGET POPULATION

Adults 18 years or older with clinical suspicion of uncomplicated acute bronchitis

INTERVENTIONS AND PRACTICES CONSIDERED

Assessment/Diagnosis

1. Medical history
2. Physical examination
3. Signs and symptoms
4. Laboratory tests
5. Differential diagnosis

Note: The following diagnostic tests and procedures were considered but not recommended: routine performance of viral cultures, serologic assays, sputum analyses, and chest X-ray.

Management/Treatment

1. Symptom management
    - Antitussive agents
    - $Beta_2$ agonist bronchodilators in select patients
2. Patient and family education
    - Smoking cessation and avoidance
    - Rest and increasing fluid intake
    - No need for antibiotics

Note: The following interventions were considered but not recommended: routine use of antibiotics and $beta_2$ agonist bronchodilators, and treatment with mucokinetic (mucolytic) agents.

MAJOR OUTCOMES CONSIDERED

Not stated

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The Michigan Quality Improvement Consortium (MQIC) project leader conducts a search of current literature in support of the guideline topic. Computer database searches are used to identify published studies, existing protocols and/or national guidelines on the selected topic developed by organizations such as the American Diabetes Association, American Heart Association, American Academy of Pediatrics, etc. If available, clinical practice guidelines from participating MQIC health plans and Michigan health systems are also used to develop a framework for the new guideline.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence for the Most Significant Recommendations

A. Randomized controlled trials
B. Controlled trials, no randomization
C. Observational studies
D. Opinion of expert panel

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Using information obtained from literature searches and available health plan guidelines on the designated topic, the Michigan Quality Improvement Consortium (MQIC) project leader prepares a draft guideline to be reviewed by the medical directors' committee at one of their scheduled meetings. Priority is given to recommendations with [A] and [B] levels of evidence (see "Rating Scheme for the Strength of the Evidence" field).

The initial draft guideline is reviewed, evaluated, and revised by the committee resulting in draft two of the guideline. Additionally, the Michigan Academy of Family Physicians participates in guideline development at the onset of the process and throughout the guideline development procedure. The MQIC guideline feedback form and draft two of the guideline are distributed to the medical directors, as well as the MQIC measurement and implementation group members, for review and comments. Feedback from members is collected by the MQIC project leader and prepared for review by the medical directors' committee at their next scheduled meeting. The review, evaluation, and revision process with several iterations of the guideline may be repeated over several meetings before consensus is reached on a final draft guideline.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

When consensus is reached on the final draft guideline, the medical directors approve the guideline for external distribution to practitioners with review and comments requested via the Michigan Quality Improvement Consortium (MQIC) health plans (project leader distributes final draft to medical directors' committee, measurement and implementation groups to solicit feedback).

The MQIC project leader also forwards the approved guideline draft to appropriate state medical specialty societies for their input. After all feedback is received from external reviews, it is presented for discussion at the next scheduled committee meeting. Based on feedback, subsequent guideline review, evaluation, and revision may be required prior to final guideline approval.

The MQIC Medical Directors approved this updated guideline in May 2008.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

The level of evidence grades (**A-D**) are provided for the most significant recommendations and are defined at the end of the "Major Recommendations" field.

Assessment

- Perform thorough history (including tobacco use status **[A]**) and physical exam
- Assess the likelihood of uncomplicated acute bronchitis using the following items:
    - Acute respiratory infection (ARI) manifested predominantly by cough, with or without sputum production lasting no more than 3 weeks
    - No clinical evidence of pneumonia
    - Common cold, acute asthma, or exacerbation of chronic obstructive pulmonary disease (COPD) have been ruled out as cause of cough
    - Consider other diagnoses if cough persists greater than 3 weeks

Diagnosis

Clinical Information and Testing

- Presumed diagnosis of acute bronchitis:
    - Acute respiratory infection (ARI) and cough with or without sputum production lasting no more than 3 weeks
    - No clinical evidence of pneumonia
- Viral cultures, serologic assays and sputum analyses should not be routinely performed **[C]**
- Chest x-ray is not indicated if all of the following are present **[B]**:
    - Acute cough and sputum production suggestive of acute bronchitis
    - Heart rate <100 beats/min
    - Respiratory rate <24 breaths/min
    - Oral temperature <38° Celsius (100.4° Fahrenheit)
    - Chest exam lacks findings of focal consolidation, egophony or fremitus

Treatment

- Condition is a self-limited respiratory disorder. Symptomatic treatment only. Routine treatment with antibiotics is not justified and should not be offered. **Avoid antibiotics [A]**
- $Beta_2$ agonist bronchodilators should not be routinely used to alleviate cough. In select patients with wheezing, treatment with $beta_2$ agonist bronchodilators may be useful **[C]**
- Antitussive agents can be offered for short-term symptomatic relief of coughing **[C]**
- Mucokinetic (mucolytic) agents are not recommended (no consistent favorable effect) **[D]**

Education and Counseling

Educate Patient/Family Regarding

- Condition often does not require medical treatment
- Inform patient that cough may last for 3 weeks
- Routine use of antibiotics is not recommended **[A]**
- Use the term "chest cold" which is associated with less patient belief that antibiotics are needed
- Rest and increasing fluid intake
- Smoking cessation and second-hand smoke avoidance **[C]** (See also the National Guideline Clearinghouse [NGC] summary of the Michigan Quality Improvement Consortium [MQIC] guideline Tobacco Control).

Definitions:

Levels of Evidence for the Most Significant Recommendations

A. Randomized controlled trials
B. Controlled trials, no randomization
C. Observational studies
D. Opinion of expert panel

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is provided for the most significant recommendations (See "Major Recommendations" field).

This guideline is based on the American College of Chest Physicians Chronic Cough Due to Acute Bronchitis: ACCP Evidence-Based Clinical Practice Guidelines, 2006 (www.chestjournal.org).

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Through a collaborative approach to developing and implementing common clinical practice guidelines and performance measures for management of uncomplicated acute bronchitis, Michigan health plans will achieve consistent delivery of evidence-based services and better health outcomes. This approach also will augment the practice environment for physicians by reducing the administrative burdens imposed by compliance with diverse health plan guidelines and associated requirements.

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

This guideline lists core management steps for clinicians who manage adults with uncomplicated acute bronchitis. Individual patient considerations and advances in medical science may supersede or modify these recommendations.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

Approved Michigan Quality Improvement Consortium (MQIC) guidelines are disseminated through email, U.S. mail, and websites.

The MQIC project leader prepares approved guidelines for distribution. Portable Document Format (PDF) versions of the guidelines are used for distribution.

The MQIC project leader distributes approved guidelines to MQIC membership via email.

The MQIC project leader submits request to website vendor to post approved guidelines to MQIC website (www.mqic.org).

The MQIC project leader completes a statewide mailing of the comprehensive set of approved guidelines and educational tools annually. The guidelines and tools are distributed in February of each year to physicians in the following medical specialties:

- Family Practice
- General Practice
- Internal Medicine
- Other specialists for which the guideline is applicable (e.g., endocrinologists, allergists, pediatricians, cardiologists, etc.)

The statewide mailing list is derived from the Blue Cross Blue Shield of Michigan (BCBSM) provider database. Approximately 95% of the state's M.D.s and 96% of the state's D.O.s are included in the database.

The MQIC project leader submits request to the National Guidelines Clearinghouse (NGC) to post approved guidelines to NGC website (www.guideline.gov).

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

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ADAPTATION

This guideline is based on the American College of Chest Physicians Chronic Cough Due to Acute Bronchitis: ACCP Evidence-Based Clinical Practice Guidelines, 2006 (www.chestjournal.org).

DATE RELEASED

2008 May

GUIDELINE DEVELOPER(S)

Michigan Quality Improvement Consortium - Professional Association

SOURCE(S) OF FUNDING

Michigan Quality Improvement Consortium

GUIDELINE COMMITTEE

Michigan Quality Improvement Consortium Medical Directors' Committee

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Physician representatives from participating Michigan Quality Improvement Consortium health plans, Michigan State Medical Society, Michigan Osteopathic Association, Michigan Association of Health Plans, Michigan Department of Community Health and Michigan Peer Review Organization

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Standard disclosure is requested from all individuals participating in the Michigan Quality Improvement Consortium (MQIC) guideline development process, including those parties who are solicited for guideline feedback (e.g., health plans, medical specialty societies). Additionally, members of the MQIC Medical Directors' Committee are asked to disclose all commercial relationships as well.

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the Michigan Quality Improvement Consortium Web site.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI Institute on July 28, 2008. The information was verified by the guideline developer on July 29, 2008.

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